CHECKLIST
NEWBORN OUTPATIENT
Hearing Screen/Rescreen

The American Academy of Pediatrics does not support the concept of performing the initial newborn hearing screening test in the medical home rather than the hospital. The responsibility of the medical home is to refer infants for further testing if needed. Exceptions may include infants born at home and not screened by the midwife or birth attendant, infants whose parents declined hospital-based screening and infants who were missed at the hospital. Additionally, an infant who did not pass the inpatient well-baby hearing screening may be rescreened one time prior to referral to a pediatric audiologist capable of diagnostic auditory brainstem response testing if that infant has not received an outpatient hearing screening.

Do NOT screen (refer directly to a pediatric audiologist):

- **Infants with craniofacial abnormalities (microtia, atresia)**
- **Infants who have already received an inpatient and an outpatient refer result**
- **Infants hospitalized for 5 days in the NICU and did not pass an inpatient hearing screening (refer on inpatient should be referred directly to audiology)**

	Check for screening results at first well check visits
	Screen as soon as possible after discharge, and always before one month of age
	Newborns who may receive an outpatient hearing screening include:
	Born at home and not screened by midwife or birth attendant
	Newborns whose parents declined hospital-based screening
	Newborns that missed inpatient screening for any reason
	Newborns who referred from an inpatient screen and have not received an outpatient screen (OAE screening after AABR is acceptable but not preferred)
	Screening should consist of a single valid rescreen of **both** ears in the same session
	Both ears should be screened even if one ear passed the initial screen
	Immediate referral to a pediatric audiologist capable of diagnostic ABR testing if not passing
	Equipment
	Appropriate screening equipment, ideally using the same technology as the original screening (subsequent screening with OAE is permissible for well babies)
	Automated physiologic measure (OAE OR AABR)
	Calibrated Annually
	Quiet environment
	Screener Responsibilities
	Demonstrable screener training and competence
	Provide parent with pediatric audiology appointment prior to leaving the rescreening facility
	Timely reporting of both pass and refer rescreening results to state EHDI program
	Screening results conveyed sensitively to the family in a culturally sensitive and understandable manner -use of scripts in the family's preferred language -importance of follow up, including clear next steps -educational materials offered to families to provide accurate information in an appropriate reading level, in the families preferred language
	Limitations of Otoacoustic Emissions (OAE)
	OAE assessment is not sufficient for determining hearing thresholds or for evaluation if risk factor is present. It is possible to have OAEs in the presence of mild sensory hearing loss. Generally, infants with present DPOAEs have hearing thresholds better than 30 dB HL.

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PROMOTING EHDI PRACTICES

Risk Factors for Early Childhood Hearing Loss

The JCIH 2019 position statement includes risk factors that are important to consider for ongoing monitoring of late onset or progressive hearing loss for those that pass the newborn hearing screening. Parents, medical providers and audiologists can benefit from understanding these risk factors as the prevalence of children confirmed as deaf or hard of hearing by school age doubles compared to the neonatal period.

When risk factors are present, comprehensive audiologic evaluation should occur. The schedule for ongoing re-evaluation is based on both the specific risk factors and the observations by the family of their child's auditory and speech/language development.

When a baby is readmitted, within the first month of life, the baby may need to be rescreened. Rescreening hearing should be completed any time there are conditions associated with elevated hearing levels. Automated ABR rescreening should be performed prior to discharge from that readmission even when the baby passed the initial newborn hearing screening. Risk factors are divided into predominantly perinatal and postnatal.

Perinatal

History of family members being deaf or hard of hearing with onset in childhood. Monitoring continues to be based on both the etiology and the level of family concern. Diagnostic evaluation recommended by 9 months of age or earlier if parent or caregiver concern is expressed.

Infants who require care in the NICU or special care nursery for more than five days is used as an indicator of illness severity.

Hyperbilirubinemia, is impacted by factors including illness severity, birth weight, rate of rise of bilirubin, clinical findings, postnatal age of the infant, and gestational age. Close follow up is recommended for those requiring exchange transfusion regardless of length of stay in the NICU.

Aminoglycoside administration of more than five days (or less than five days if toxic blood levels are identified), or if there is a family history of a mitochondrial genetic mutation associated with sensitivity for sensorineural hearing loss.

Perinatal asphyxia, also termed hypoxic ischemic encephalopathy, is noted because of the illness severity and increase in permanently elevated hearing thresholds.

Extracorporeal membrane oxygenation (ECMO) is specifically noted because of the increased risk of delayed-onset hearing loss.

In-utero infections pose a risk and require follow up by 9 months of age. cCMV is a leading cause of congenital infection and a leading cause of non-genetic unilateral or bilateral early, progressive, and delayed onset sensorineural hearing loss. The recommendation for audiologic assessment for infants with cCMV is no later than 3 months of age. Those infants born to mothers with possible Zika virus exposure during pregnancy or with findings consistent with congenital Zika syndrome should receive a standard newborn hearing screen at birth or by one month of age using the automated ABR (not OAE).

All craniofacial conditions and physical conditions associated with hearing loss are included as risk factors.

More than 400 syndromes and genetic disorders associated with atypical hearing thresholds are now included as risk factors.

Perinatal or Postnatal Risk Factors

- Perinatal and postnatal confirmed bacterial and/or viral meningitis or encephalitis.
- Predominantly post-natal events of chemotherapy, significant head trauma and particularly injury to the mastoid.
- Family concern regarding development, hearing, speech, or language should result in immediate referral.

This QR code will take you to the JCIH website

This QR code will take you to the EHDI Pals website

This QR code will take you to AAP EHDI resources.

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